MOTOROLA

CPE*i* 150 Series

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Chapter

1

Chapter 1: Desktop CPEi150 User Guide Overview Information

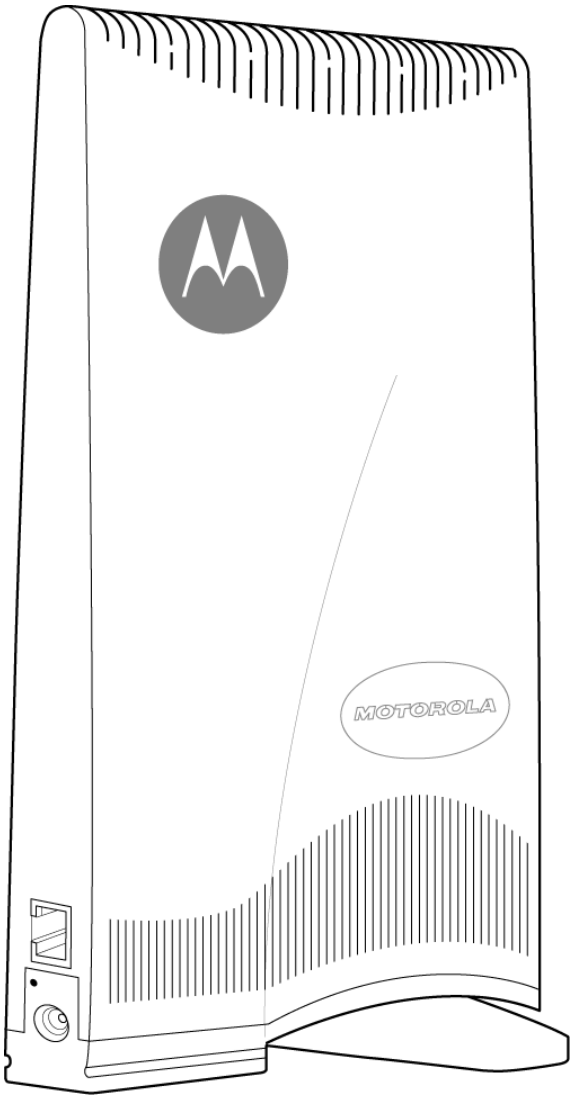
Overview

Thank you for purchasing the Motorola CPE Indoor (CPEi) 150 desktop device. The Desktop CPE allows you to connect to the wireless world easily and seamlessly without complicated installation and setup procedures.

The Desktop CPE device provides the user:

- Convenience — with easy plug and play functionality. Flexible connectivity. Compact design.
- Performance — dual integrated antennas, optimized for rich indoor multipath environments. Best in Class Radio Performance. Reliable indoor coverage. High throughput.
- Control — remote management capability allows easy detection and authentication once the unit is setup. Robust security.

Figure 1-1: CPEi150 Unit



This product is subject to change. Not all features described in this WiMAX CPEi150 User's Guide are available on all models.

For the most recent documentation, visit the Product Documentation page on www.motorola.com.

Powerful Features in a Single Unit

The CPE device provides the following features:

- WiMAX Authentication
- WAN DHCP Client
- LAN DHCP Server
- Router Functions
- Firewall Protection
- Port Forwarding

Front of CPE

The CPE unit contains an LED indicator at the top of the unit. The LEDs provide the status of the unit and signal strength for easy adjustment during setup.

Table 1-1 LED Indicator Interface

Item	Description
Power Status	The LEDs are: • On - power to the CPE is on. • Off - power to the CPE is off.
Initializing Status	The center LED flashes when the CPE is initializing.
Signal Strength	• If all LEDs on the bar are lit, full signal is being received. • If all LEDs are off, the CPE is unplugged. • LEDs will display a chase pattern when the device is attempting to locate and connect to the network.

NOTE

There is no reset button on this CPE unit. If you want to reset the CPE, pull out the power cord and plug it in again.

Side Panel

The side panel of the unit contains the Ethernet Port, the Power Connection Port, and a Ethernet Port LED.

Figure 1-2: CPEi150 Side Panel

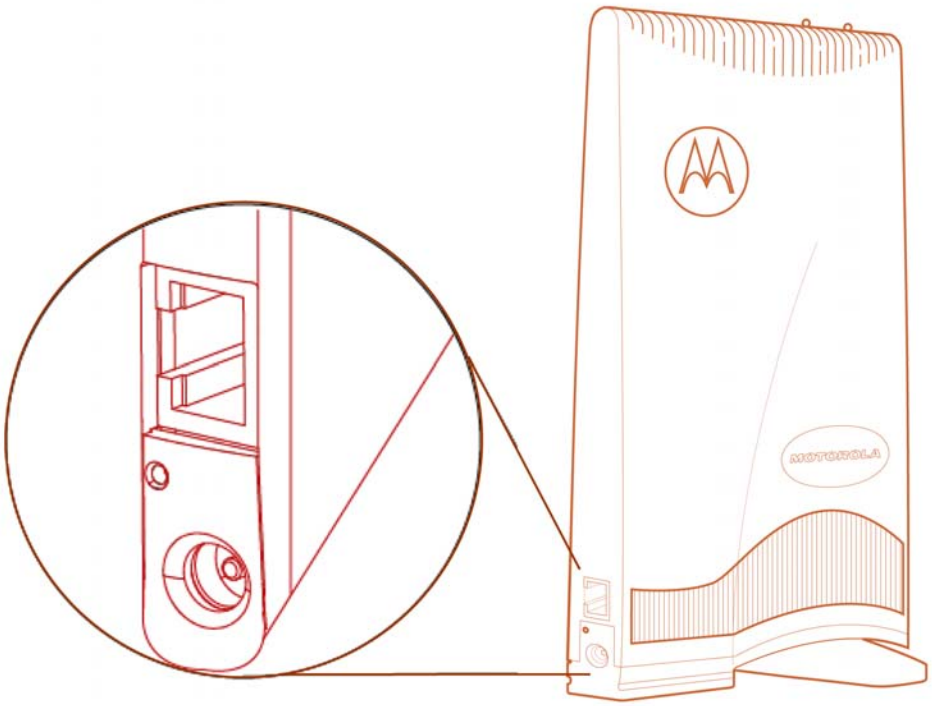


Table 1-2 Port Descriptions

Side Panel Ports	Description
Ethernet	Ethernet Port
Power	AC Power Connector
Ethernet LED	The LED is: • On - Ethernet Port is connected. • Off - Ethernet Port is not connected. • Blinking in 5-10 second intervals - the Ethernet cable is not connected to the computer.

Operating Information

Operating temperature for this unit is 0-40^{o}C (32-104^{o}F)

AC Power Rating for this unit is:

- 110 ~ 240 AC

Chapter 2: Installation

Overview

To connect the CPEi150, you need to review the following sections:

- What's in the box?
- Easy Setup

What's in the Box?

Before you begin installation, check that you have received the following items with your CPE:

Table 2-1 CPE Box Contents

Item	Description
AC Adaptor	Power Adaptor
Power Cord	Power cord that connects the AC Adaptor to the CPE
Ethernet Cable	Cable to connect the Ethernet port on your CPE to your PC or laptop computer ethernet port
Quick Start Guide	Guide to demonstrate the setup and basic IP configuration

Easy Setup

Perform the following tasks before attaching the power cord or powering up the unit:

- Rotate the base of the CPE to be in a perpendicular position.
- Connect one end of the Ethernet cable to the Ethernet port of the CPE. Stand the CPE vertically on a flat surface.
- Connect the other end of the same Ethernet cable to an Ethernet port on your PC or laptop computer.
- Connect the power cord and the power adapter together.
- Plug the power adapter into an AC power outlet.
- The CPE will automatically turn on.
- Connect the power adapter to the power connector on the side of the unit.

NOTE

Do NOT mount the CPE unit horizontally and do NOT block the air ventilation holes at the top of the unit.

Before You Begin Configuration

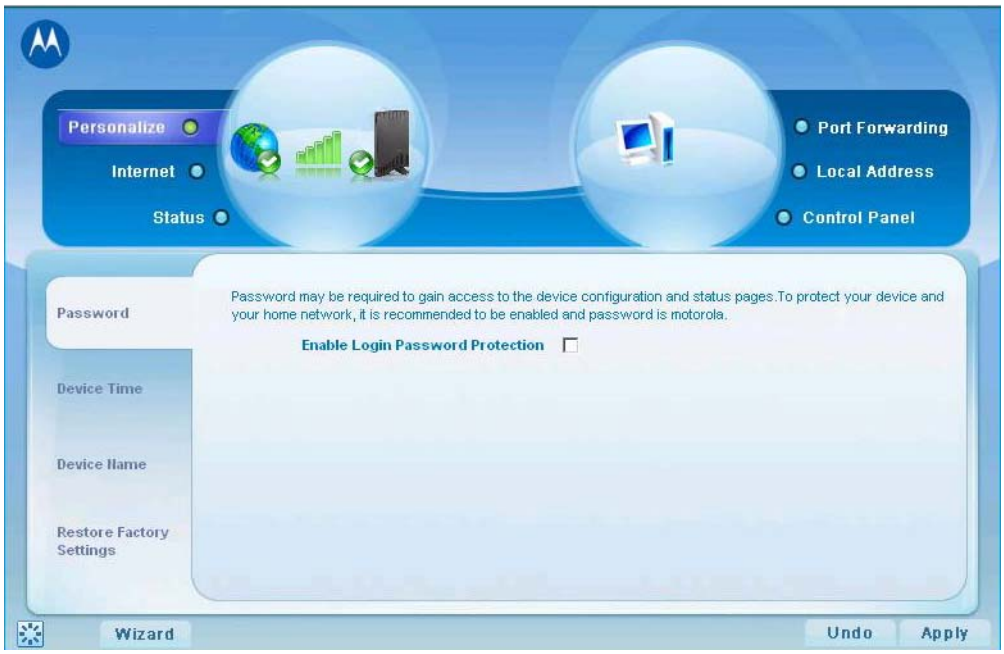
Some settings on your computer must be verified or changed to ensure that your computer configuration can support the Desktop CPE.

- Call your service provider to confirm that your service provider has registered your unit.
- Verify that the IP address and DNS settings are automatically generated in your Local Area connection of your Internet Protocol (TCP/IP) properties. Refer to the chapter titled “Configuring TCP/IP” for information on how to do this.
- Ensure you know which protocol you will need to enter in the Setup Wizard procedure. This will either be EAP-TLS or EAP-TTLS. If EAP-TTLS is to be used, your service provider will provide you a Username and Password.

User Interface Overview

A web based Graphical User Interface (GUI) is used to configure the features of the CPE.

Figure 2-1: Main Menu Sample



There are six main menus in the GUI:

Table 2-2 Menu Description

Menu Tab	Description
Personalize	Use this menu to set up your password, device time and device name. You can also abandon your personal settings by clicking "**Restore Factory Settings**".
Internet	Use this menu to configure internet connection settings, including Authentication, Protocol, Firewall, and Dynamic DSN.
Status	Use this menu to display network status, including WiMAX, Internet, LAN, and Device Information.
Port Forwarding	Use this menu to enable Universal Plug and Play (UPnP) Internet Gateway Device (IGD) profile to allow certain Windows applications to setup the port forwarding rule dynamically when NAT is enabled on this device.
Local Address	Use this menu to display the IP Address and netmask address in the local network.
Control Panel	Use this menu to manage the device software.

The following buttons appear at the bottom of each configuration page:

Table 2-3 Button Descriptions

Button	Function
Apply	Saves your changes. If you restart your CPE without saving your changes, all changes are lost. After the device restarts, the last saved configuration is used.
Undo	Clears your changes on the current page and returns to the main menu. Once you click Apply, the Undo button will NOT clear your changes.
Next	Confirms the current setting and moves on to the next screen.
Refresh	Manually updates current status page.
Auto Refresh	Updates automatically without needing you to refresh manually.
Wizard	Starts Setup Wizard manually if your CPE did not run the setup program automatically.

NOTE

Illustrations in this manual containing an image of what you see on your computer screen are for reference purposes only. Values shown in the illustrations in this manual may be different from what you see on your computer screen.

Logging In to the CPE

Use the following procedure to log into the Desktop CPE:

1. On a computer that is connected to the CPE, open a web browser.
   Enter the IP address: **http://192.168.15.1** into Address field in order to gain access to your CPE. If you cannot access the CPE, refer to the chapter titled: Configuring TCP/IP for more information.

NOTE

Or in the Address or Location field, type **http://mywimax.** and press **ENTER** to display the login screen. You must include the period (.) after http://mywimax. in order to access the login screen.

2. The Welcome to Motorola WiMAX CPE screen will be displayed and will prompt you for a password.
3. In the **Password** field, type the password (default is **motorola**).
4. Click **Login.**
5. First time users will see a pop-up box that states: "The Wizard application will guide you through for the first time configuration. Click OK button to continue."
6. Click the **OK** button to launch the wizard application.

Setup Wizard and Authentication

Step 1 - Change Password

Once you have launched the setup wizard, you will be prompted to change your password. Motorola recommends using a password to protect your home network and CPE device. Passwords are case-sensitive.

To change your password:

- Ensure the "*Enable Login Password Protection*" box is checked.
- Enter a New Login Password in the box. Passwords can be no more than 20 characters in length.
- Re-type your new password in the Confirm New Login Password box.
- Click **Next.**

Step 2 - Device Time

This screen allows you to set the time zone and to enable Daylight Savings Time (when applicable) for your location.

- Select the appropriate time zone for your location from the drop down box.
- Check the box called “Auto Adjust for Daylight Savings Time” if you live in a region that observes Daylight Savings Time (this box is checked by default).
- Click **Next.**

Step 3 - WiMAX Security

The WiMAX Security tab will contain your authentication method. Check with your service provider to determine if they require a user name and password for authentication purposes.

- If the Authentication Method is EAP-TLS:
  - Enter the Realm information supplied by your service provider.
  - Click the **Apply** button when finished.
- If the Authentication Method is EAP-TTLS/MS-CHAPv2:
  - Enter the User name and Password as supplied by your service provider.
  - Enter the Realm information as provided by your service provider.
  - Click the **Apply** button when finished.

Congratulations! You have now completed the setup of your WiMAX connection.

Click **OK** on the Congratulations! dialog box.

A status screen will appear showing Network status. When your CPE successfully connects to the Internet, you will see the actual link status and statistics. Note that the screen shown in this illustration is an example of the screen. Use the scroll bar on your menu screen to view all the status items that are reported by your unit.

Figure 2-2: Status Screen

Chapter 3: Basic Configuration

Overview

Once the CPE setup has been completed, you can login to your CPE from any computer on your home network by typing the device name in the address bar. The default device name is **mywimax.** or **192.168.15.1**

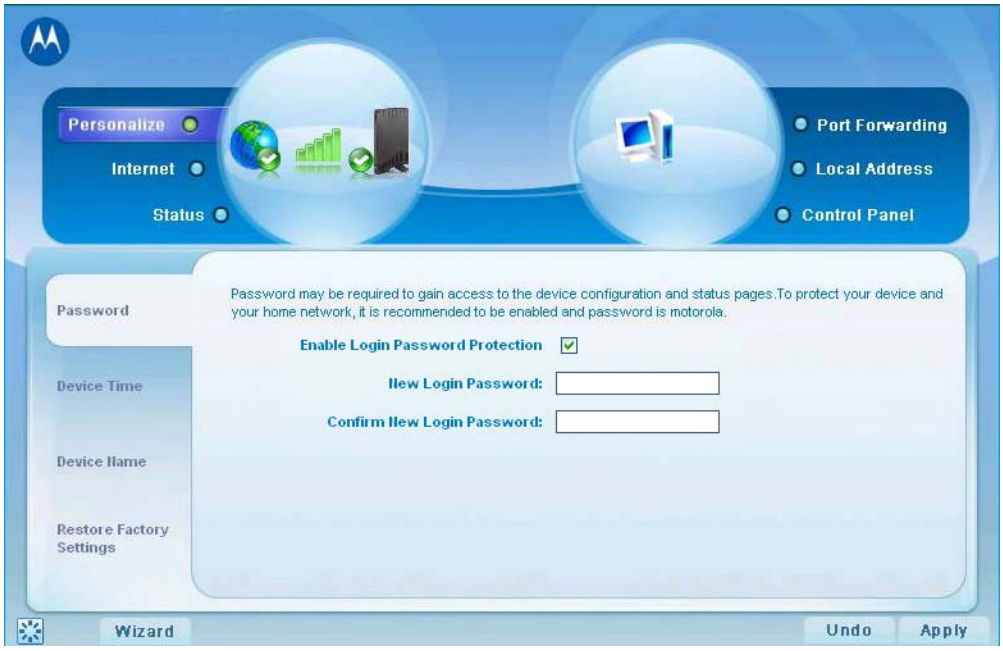
This section describes the PERSONALIZE, INTERNET, and STATUS Menus that are available.

Personalize Menu

The Personalize menu provides the following tabs:

- Password
- Device Time
- Device Name
- Restore Factory Settings

Figure 3-1: Personalize Menu



Password Tab

The password tab allows you to enable/disable password protection. You can also change your password here. Be sure to click the **Apply** button when finished.

Table 3-1 Password Tab Fields

Field or Button	Description
Enable Login Password Protection	Checking this box will require login Password Protection.

Table 3-1 Password Tab Fields

Field or Button	Description
New Login Password	Enter your new password here. Maximum 20 characters. Passwords are case-sensitive.
Confirm New Login Password	Re-enter your new password here, exactly as entered above.

Device Time Tab

The Device Time tab allows you to establish the time zone for your location. It also allows you to automatically adjust for Daylight Savings Time if necessary. Be sure to click the **Apply** button when finished.

Table 3-2 Device Time Tab Fields

Field or Button	Description
Current Local Time	Shows the current local date and time.
Time Zone	Select your local time zone from the drop down box.
Auto Adjust for Daylight Saving Time	Check this box if your location observes Daylight Savings Time. (Default is checked)

Device Name Tab

The Device Name tab allows you to rename your CPE device. This is the Device Name you enter on an internet browser address bar to access your CPE device. Be sure to click the **Apply** button when finished.

Table 3-3 Device Name Tab Fields

Field or Button	Description
New Device Name	Enter the new name for the CPE device. Maximum 20 characters.

Restore Factory Settings Tab

Table 3-4 Restore Factory Settings Tab Fields

Field or Button	Description
Restore Factory Settings	Checking this box will restore the CPE to factory default settings. The device will restart when you click **Apply**.

Internet Menu

The Internet menu provides the following tabs:

- WiMAX Security
- Internet Protocol Tab
- Firewall
- Dynamic DNS

Figure 3-2: Internet Menu Screen

WiMAX Security Tab

The WiMAX Security tab will contain your authentication method. Check with your service provider to determine if they require a user name and password for authentication purposes.

Table 3-5 WiMAX Tab Fields

Field or Button	Description
Authentication Method	Drop down box allows you to select either EAP-TLS (default) or EAP-TTLS/MS-CHAPv2.
User Name (EAP-TTLS/MS-CHAPv2 only)	Enter the User Name supplied by your service provider.
Password (EAP-TTLS/MS-CHAPv2 only)	Enter the Password supplied by your service provider.
Realm	Supplied by your service provider.

If your authentication method is EAP-TLS, then a User Name and Password are not necessary.

Click the **Apply** button.

Internet Protocol Tab

Please check with your service provider for these settings. If you are unsure of the settings, leave the default values set and click the **Apply** button.

If your service provider has instructed you to change any of these settings, be sure to click the **Apply** button when you are finished.

Firewall Tab

A firewall helps to protect your home network from unauthorized access. It will also help to manage authorized access from the internet to your CPE.

Table 3-6 Firewall Tab Fields

Field or Button	Description
Enable Firewall	Check this box to enable the firewall for your home network.
Enable Web Login from Internet	(Grayed out if Enable Firewall is not selected). Checking this box enables you to access your CPE device from a network other than your own.
Web Login Port from Internet	Choose a port number to connect to when logging in from a network other than your own. The default is 8080.
Enable ping from Internet	Enables the CPE to respond to a ping from the Internet. This option would be enabled to allow testing only. Do not leave this enabled.

The Enable Web Login from Internet and the Enable Ping from Internet options are by default turned off. This is because these options allow unknown users to access your computer via the internet, and this is not safe.

You may need to turn these options on if there is a problem with your CPE/Internet Connection. Turning these options on will allow your service provider access to your computer to troubleshoot any problems. Remember to enter the number of the port that is allowed to access your computer if these options are turned on.

Be sure to click the **Apply** button once you are finished.

Dynamic DNS Tab

Dynamic Domain Name Service (DDNS) allows a user with a non-static IP address to keep their domain name associated with an ever changing IP address. As an example, DDNS is used when you are hosting your own website.

Table 3-7 Dynamic DNS Tab Fields

Field or Button	Description
Enable DDNS	Check this box to Enable DDNS (default is unchecked).
DDNS Service Provider	Select DDNS Service Provider that you belong to from the drop down box.

Be sure to click the **Apply** button once you are finished.

Status Menu

The Status menu provides the following tab:

- Network

Figure 3-3: Status Menu Screen

Network Tab

The Network tab will provide any status associated with your WiMAX Wireless Broadband connection.

Chapter 4: Advanced Configuration

Overview

The Advanced Configuration section describes the following menus:

- Port Forwarding
- Local Address
- Control Panel

Port Forwarding Menu

Port forwarding enables you to direct incoming traffic to specific LAN hosts (computers on your network) based on the protocol and port number. It is used to play Internet games or provide local services (such as web hosting) for a LAN group.

The Port Forwarding menu provides the following tabs:

- Basic
- Forwarding

Figure 4-1: Port Forwarding Menu Screen

Personalize
Internet
Status
Port Forwarding
Local Address
Control Panel
Basic
Forwarding
Enables Universal Plug and Play (UPnP) Internet Gateway Device (IGD) profile to allow certain Windows applications to setup the port forwarding rules dynamically on this device. Enable a specific LAN client to accept inbound connections which do not match with any forwarding rules and triggering rules. This client sometimes is referred as DMZ (Demilitarized Zone).
Enable UPnP IGD
DMZ IP Address : 192 . 168 . 15 . 2
Wizard
Undo
Apply

Basic Tab

Table 4-1 Port Forwarding Basic Tab Fields

Field or Button	Description
Enable UPnP IGD	Enables Universal Plug and Play (UPnP) Internet Gateway Device (IGD) profile to allow certain Windows applications to setup the port forwarding rule dynamically when NAT is enabled on this device.
DMZ (DeMilitarized Zone) IP Address	Enter the DMZ IP Address.

Be sure to click the **Apply** button once you have made changes.

Forwarding Tab

Click on the **ADD** button to create additional Port Forwarding rules.

Table 4-2 Port Forwarding Tab Fields

Field or Button	Description
Select	Select a box when you want to delete the specific row.
Protocol	Select TCP (Transmission Control Protocol) or UDP (User Datagram Protocol).
WAN Port Start	Enter the beginning port range for external network access.
WAN Port End	Enter the ending port range for external network access.
LAN IP Address	Enter the IP address to host the service in the dotted-decimal format.
LAN Port Start	Enter the beginning port range for internal network access.
LAN Port End	Enter the ending port range for internal network access.
Enabled	Check to enable specific port forwarding.

Be sure to click the **Apply** button once you have made changes.

Local Address Menu

The Local Address menu allows you to configure your Local Area Network (LAN) connections.

The Local Address menu provides the following tabs:

- DHCP Server
- Lease Status
- Lease Reservation

Figure 4-2: Local Address Menu Screen

Personalize
Internet
Status
Port Forwarding
Local Address
Control Panel
Basic
Forwarding
Enables Universal Plug and Play (UPnP) Internet Gateway Device (IGD) profile to allow certain Windows applications to setup the port forwarding rules dynamically on this device. Enable a specific LAN client to accept inbound connections which do not match with any forwarding rules and triggering rules. This client sometimes is referred as DMZ (Demilitarized Zone).
Enable UPnP IGD
DMZ IP Address : 192 . 168 . 15 . 2
Wizard
Undo
Apply

DHCP Server Tab

The DHCP Server tab enables Dynamic Host Configuration Protocol (DHCP) server functionality on the LAN, allowing the router to dynamically assign lease IP addresses to clients that connect to it from the local network.

Table 4-3 DHCP Server Tab Fields

Field or Button	Description
Enable DHCP Server	If selected, the DHCP server on the gateway assigns IP addresses to the computers and other hosts on your network if they have DHCP enabled. By default, the gateway server is enabled. If there is another DHCP server running on your network (on another router), you must disable one of the DHCP servers. If not selected, you must carefully configure the IP address, Subnet Mask, and DNS settings of every host on your network. Do not assign the same IP address to more than one host. Your gateway must be on the same subnet as the other hosts.
DHCP Server IP Address	Enter the default port forwarding LAN Client IP Address.

Table 4-3 DHCP Server Tab Fields

Field or Button	Description
DHCP Starting IP Address	Sets the first IP address assigned by the DHCP server, in dotted-decimal format. It must be greater than the IP address value of the gateway. For example, if the IP address of the gateway is 192.168.15.1 (default), the starting IP address must be 192.168.15.2 (or higher).
DHCP Ending IP Address	Sets the final IP address assigned by the DHCP server. If the DHCP server runs out of DHCP addresses, users cannot access network resources. If this happens, increase the Ending IP (to the limit of 254) or reduce the Lease Time.
DHCP Lease Time	Sets the time, in seconds, that a network computer remains connected to the gateway using its current assigned IP address. At the end of this time, the DHCP server renews the lease or assigns the computer a new IP address. The default is 1 hour. The maximum is about 278 hours.

Be sure to click the **Apply** button once you have made changes.

Lease Status Tab

The Lease Status tab in the Local Address menu displays the active DHCP leases since the last reboot.

Table 4-4 Lease Status Tab Fields

Field or Button	Description
Client Host Name	Displays the client host name. The Name field is limited to 20 characters (only 5 appear in display).
MAC Address	Media Access Control (MAC) address.
IP Address	Shows the IP Address for each active lease.
Remaining Lease Duration	Shows the amount of time, in seconds, remaining in the lease.

Be sure to click the **Apply** button once you have made changes.

Lease Reservation Tab

This tab allows you to manage the lease reservation so that the same client receives the same IP address each time.

Table 4-5 Lease Reservation Tab Fields

Field or Button	Description
Select	Select this box if you want to delete an established lease reservation. Be sure to click the **Delete** button once you have selected your exception to be deleted.
Client Host Name	Enter the client host name. The Name field is limited to 20 characters (only 5 appear in display).
MAC Address	Media Access Control (MAC) address. Enter the MAC address of the device.
IP Address	Enter the IP address that you want assigned to the MAC Address.
Enabled	Checking this box enables the lease reservation.

Click on the **Add** button to create an additional Lease Reservations.

To delete a Lease Reservation, select the reservation to be removed and click the **Delete** button.

Be sure to click the **Apply** button once you have made changes.

Control Panel Menu

The Control Panel section allows you to view/update your software information.

The Control menu provides the following tabs:

- Software
- Certificate
- System
- About

Figure 4-3: Control Panel Menu Screen

Personalize
Internet
Status
Port Forwarding
Local Address
Control Panel
Software
Certificate
System
About
Manages the device software and add/delete the add-on software. Click the Browse button to locate the software package on your computer. Then click the Upgrade button to add/upgrade the software to the device. Click the View button to check device software upgrade availability and new or updatable add-on software. Select the software you want to upgrade/update/add and click the Install button. Select the software you want to remove and click the Uninstall button to delete the add-on software.
Device Software Upgrade Path:
Browse...
Upgrade
Device Software Version: 02.00.10.05.11 (2008.04.21 10:06:55)
Available Software Packages
View
Install
No Available Software Packages Provided.
Installed Add-On Software Packages
Uninstall
Wizard

Software Tab

The Software tab manages the software on your CPE device. It is also where you can upgrade device software.

Table 4-6 Software Tab Fields

Field or Button	Description
Browse	Use this button to browse your computer for additional software packages.
Upgrade	Once you have located the software package/update you would like to add to your device.
View	Use this button if you are unable to see the Available Software List.
Install	Click this button to begin installation of the software you have selected.
Uninstall	Click this button to uninstall a selected software package.

Certificate Tab

The Certificate tab is where you manage the certificates that are stored on the device.

Table 4-7 Certificate Tab Fields

Field or Button	Description
Browse	Use this button to locate a certificate file on your computer.
Import	Click this button to install a certificate once you have located the certificate file on your computer.
Remove	Click this button to remove a selected certificate.

System Tab

This tab allows you to manage additional features of your CPE device.

Table 4-8 System Tab Fields

Field or Button	Description
Language Used in User Interface	Select the desired language for the user interface. The default language is English.
Enable WiMAX Radio Interface	Check this box to enable the WiMAX Radio Interface.
Auto Refresh Interval	Enter, in seconds, the interval for status Auto Refresh. Valid range is 10 seconds - 60 seconds. The default value is 10 seconds.
Rebootstrap EMS	Check this box to reconnect the device with the EMS. NOTE: Only perform this function under the supervision of a Customer Support Representative.

Be sure to click the **Apply** button once you have made changes.

About Tab

The About Tab will display basic properties of your CPE device such as: Part Number, Model ID, Hardware Version, Serial Number and the WiMAX MAC Address.

Chapter

5

Chapter 5: Configuring TCP/IP

Overview

This section contains two examples of configuring TCP/IP in a Windows environment. Most computers already have the TCP/IP configuration enabled. Use the following procedures to verify that the configuration is set up.

All client computers on your network must be configured for TCP/IP (the protocol that controls communication among computers). We have provided two examples for you in the following examples:

- Configuring TCP/IP in Windows 2000
- Configuring TCP/IP in Windows XP

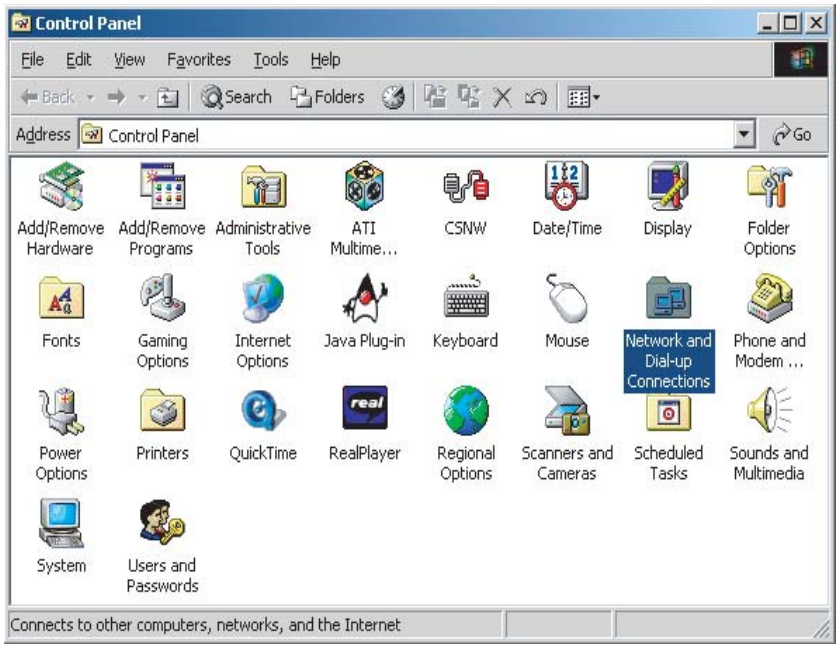
NOTE

Follow the instructions in your computer user manual for other Operating Systems.

Configuring TCP/IP in Windows 2000

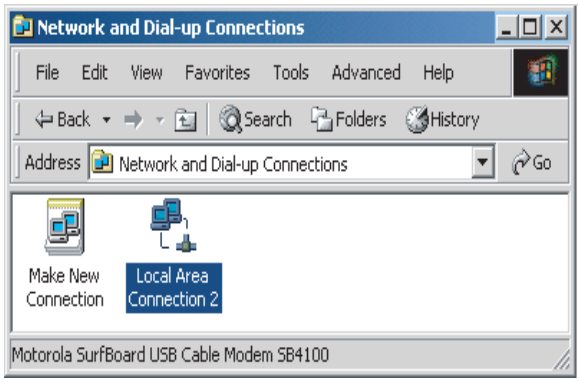
1. On the Windows Desktop, click **Start**.
2. Select **Settings** and then **Control Panel** from the pop-up menus to display the Control Panel window:

Figure 5-1: Windows Control Panel



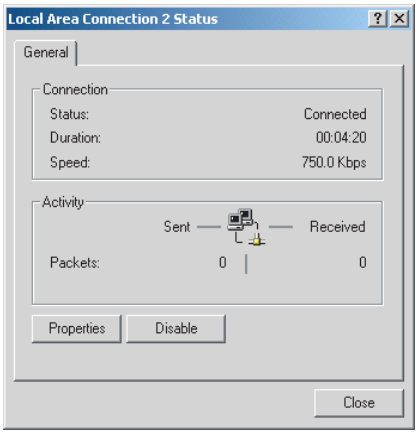
3. Double-click the **Network and Dial-up Connections** icon to display the Network and Dial-up Connections window:

Figure 5-2: Network and Dial-Up Connections


Network and Dial-up Connections
File Edit View Favorites Tools Advanced Help
Back Search Folders History
Address Network and Dial-up Connections
Go
Make New Connection
Local Area Connection 2
Motorola SurfBoard USB Cable Modem SB4100

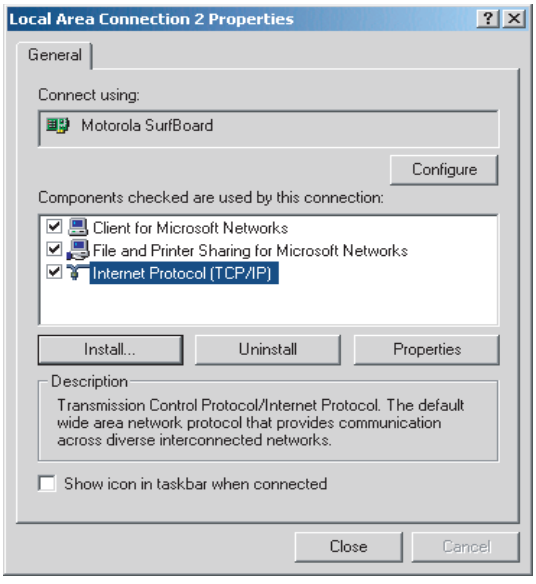
4. Click **Local Area Connection** number icon. The value of number varies from system to system. The Local Area Connection number Status window is displayed:

Figure 5-3: Local Area Connection



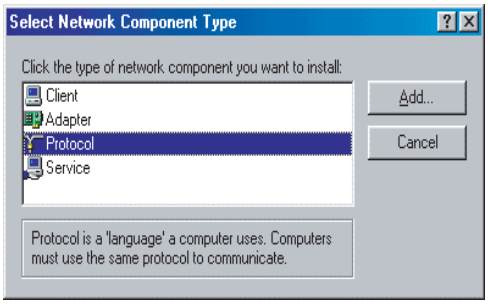
5. Click **Properties**. Information similar to the following window is displayed:

Figure 5-4: Properties


Local Area Connection 2 Properties
General
Connect using:
Motorola SurfBoard
Configure
Components checked are used by this connection:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
Internet Protocol (TCP/IP)
Install... Uninstall Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in taskbar when connected
Close Cancel

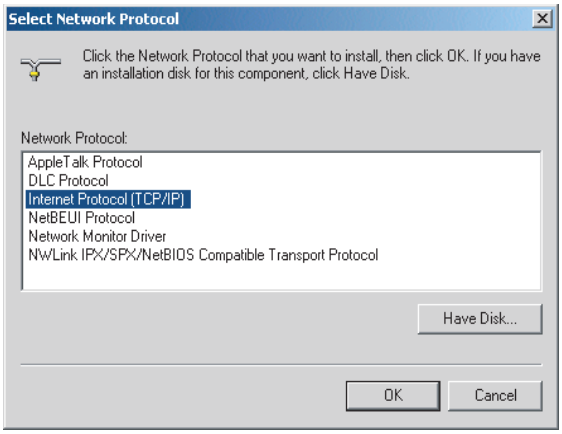
6. If Internet Protocol (TCP/IP) is in the list of components, TCP/IP is installed. You can skip to Step 10.
   If Internet Protocol (TCP/IP) is not in the list, click **Install**. The Select Network Component Type window is displayed:

Figure 5-5: Select Network Connection Type



7. Click **Protocol** on the Select Network Component Type window and click **Add**. The Select Network Protocol window is displayed:

Figure 5-6: Select Network Protocol

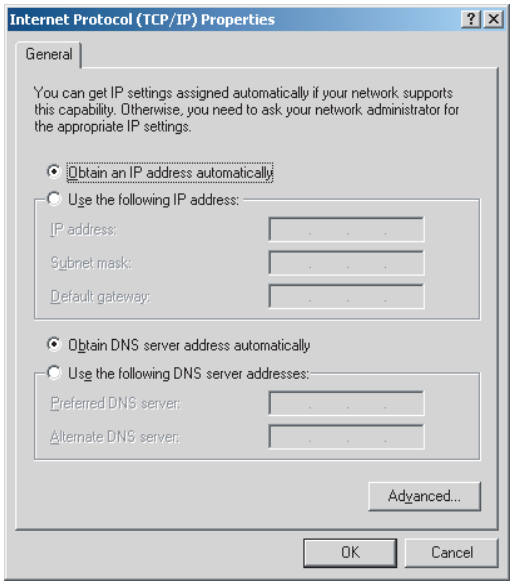

Select Network Protocol
Click the Network Protocol that you want to install, then click OK. If you have an installation disk for this component, click Have Disk.
Network Protocol:
AppleTalk Protocol
DLC Protocol
Internet Protocol (TCP/IP)
NetBEUI Protocol
Network Monitor Driver
NWLink IPX/SPX/NetBIOS Compatible Transport Protocol
Have Disk...
OK
Cancel

NOTE

You may have to use the scroll bar to locate the Internet Protocol (TCP/IP) setting.

8. Click **Internet Protocol (TCP/IP)**.
9. Click **OK**. The Local Area Connection number Properties window is re-displayed.
10. Be sure the box next to Internet Protocol (TCP/IP) is checked.
11. Click **Properties**. The Internet Protocol (TCP/IP) Properties window is displayed:

Figure 5-7: Internet Protocol (TCP/IP) Properties


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

12. Be sure Obtain IP address automatically and Obtain DNS server address automatically are selected.
13. Click OK to accept the TCP/IP settings.
14. Click Close to close the Local Area Connection number Properties window.
15. Click OK.
16. If prompted to restart the computer and click OK again.

Configuring TCP/IP in Windows XP

1. On the Windows desktop, click **Start** to display the Start window:

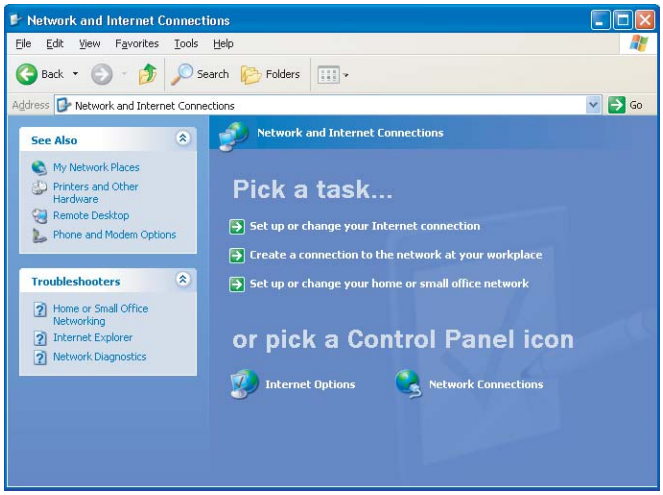
Figure 5-8: Windows XP Start Window

2. Click **Control Panel** to display the Control Panel window. The display varies, depending on your Windows XP view options. If the display is a Category view as shown below, continue with Step 3. Otherwise, skip to Step 5.

Figure 5-9: Control Panel

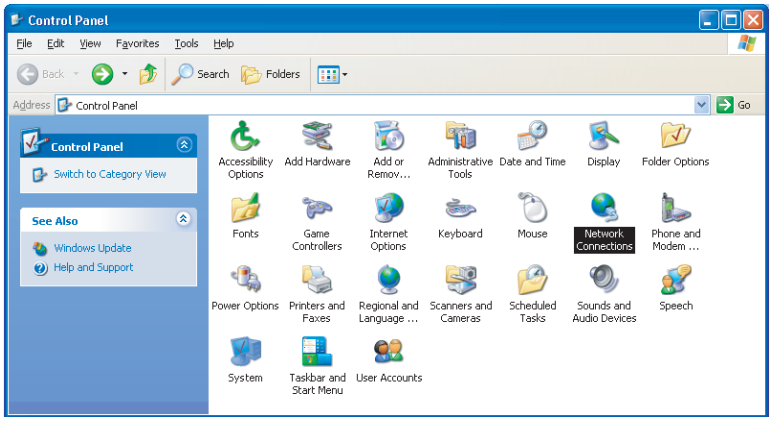
3. Click **Network and Internet Connections** to display the Network and Internet Connections window:

Figure 5-10: Network and Internet Connections


Network and Internet Connections
File Edit View Favorites Tools Help
Back Search Folders
Address Network and Internet Connections
Go
See Also
My Network Places
Printers and Other Hardware
Remote Desktop
Phone and Modem Options
Troubleshooters
Home or Small Office Networking
Internet Explorer
Network Diagnostics
Network and Internet Connections
Pick a task...
Set up or change your Internet connection
Create a connection to the network at your workplace
Set up or change your home or small office network
or pick a Control Panel icon
Internet Options
Network Connections

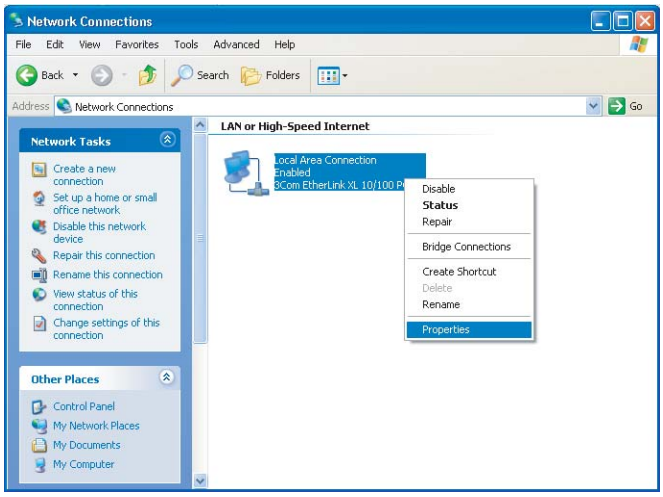
4. Click **Network Connections**. Skip to Step 6.
5. If a classic view similar to below is displayed, double-click **Network Connections** to display the LAN or High-speed Internet connections.

Figure 5-11: Control Panel Classic View



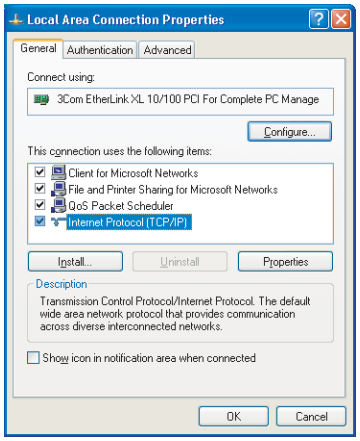
6. Right-click the **Local Area Connection**. If more than one connection is displayed, be sure to select the one for your network interface.

Figure 5-12: Network Connections



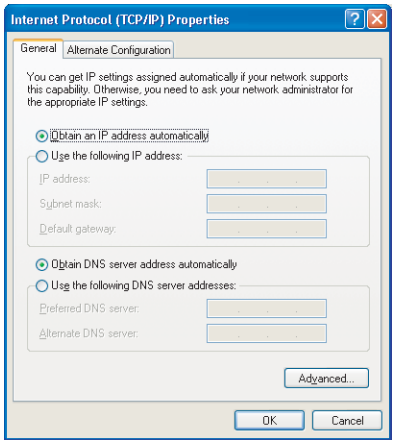
7. Select **Properties** from the pop-up menu to display the Local Area Connection Properties window:

Figure 5-13: Local Area Connection Properties



8. On the Local Area Connection Properties window, select **Internet Protocol (TCP/IP)** if it is not selected.
9. Click **Properties** to display the Internet Protocol (TCP/IP) Properties window:

Figure 5-14: Internet Protocol (TCP/IP) Properties


Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

- Be sure to Obtain IP address automatically and Obtain DNS server address automatically are selected.
- Click **OK** to close the TCP/IP Properties window.

Chapter
6

Chapter 6: Troubleshooting

Overview

This chapter provides basic troubleshooting procedures for your CPEi150 device.

LED indicators are Off

- Check that the AC power adapter is properly plugged into the electrical outlet and into the Desktop CPE.

A Computer Cannot Log On to the CPE

Check that the Ethernet cable is properly connected to the Desktop CPE unit and the computer.

Cannot Connect to the Internet

- Check the Desktop CPE connection status from the Web Interface, refer to the Connection Status section to verify the connection status.
- If the Desktop CPE connection is down, and the gateway has not received an IP for more than 5 minutes, re-run the set up wizard.
- To restart the CPE, unplug the power and re-connect.

Additional Troubleshooting Help

Contact your service provider for additional help.

Chapter

7

Chapter 7: Important Safety and Legal Information

Important Safety and Legal Information

Your Motorola WiMAX Wireless Broadband Gateway is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to RF electromagnetic energy.

ThisProduct complies with the following RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J
- American National Standards Institute (ANSI)/ Institute of Electrical and Electronic Engineers (IEEE) C95 1-2005
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Ministry of Health (Canada) Safety Code 6. Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999

RF Exposure Compliance and Guidelines Operating Instructions

To comply with FCC RF energy exposure requirements, this Gateway desktop transmitter should be operated at a minimum separation distance of 20 cm from all persons.

For additional information on exposure requirements or other training information, visit http://www. motorola.com/rfhealth

FCC Regulatory Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Gateway desktop transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Industry Canada Statement

This device complies with RSS-193, and RSS-Gen of the Industry Canada Rules. Operation is subject to the following two conditions:

this device may not cause interference and

this device must accept any interference, including interference that may cause undesired operation of the device

This device has been designed to operate with an antenna having a maximum gain of 7 dBi. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p) is not more than that permitted for successful communications.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IC Radiation Exposure Statement:

NOTE

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Caring for the Environment

The following information is provided to enable regulatory compliance with the European Union (EU) Directive 2002/96/EC Waste Electrical and Electronic Equipment (WEEE) when using Motorola Networks equipment in EU countries.

Disposal of Motorola Equipment in EU Countries

This product is compliant with the requirements of the European Union Restriction of Hazardous Substances (EU RoHS) directive.

Please do not dispose of Motorola Networks equipment in landfill sites.

In the EU, Motorola Networks in conjunction with a recycling partner will ensure that equipment is collected and recycled according to the requirements of EU environmental law.

Disposal of Motorola Equipment in Non-EU Countries

In non-EU countries, dispose of Motorola Networks equipment in accordance with national and regional regulations.

CMM Disclosure

The China Management Methods (CMM) Disclosure Table is intended only to communicate compliance with China requirements; it is not intended to communicate compliance with EU RoHS or any other environmental requirements.

Figure 7-1: CMM Disclosure Information

Disclosure table

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
金属部件	×	○	×	×	○	○
电路模块	×	○	×	×	○	○
电缆及电缆组件	×	○	×	×	○	○
塑料和聚合物部件	○	○	○	○	○	×

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